

IN THE CLAIMS:

1. **(Currently amended)** A hull for a water craft, wherein the center of gravity (Cg) of the hull is substantially vertically aligned with the center of hydrodynamic lift (Cp) of a lifting surface of the hull, both at lift-off speed and at design speed; and wherein the aspect ratio ( $S_1^2/A_1$ ) of the wetted hull at design speed is in the range of 2.5 to 5.0 and ~~has the shape of a rectangle~~ is substantially rectangular; and has the shape of a delta at liftoff speed.

2. **(Previously presented)** A hull according to claim 1, wherein the center of gravity (Cg) and center of hydrodynamic lift (Cp) are substantially vertically aligned at all hull speeds between lift-off and design speed and above.

3. **(Previously presented)** (Previously Amended) A hull according to claim 2, wherein the center of gravity (Cg) and center of hydrodynamic lift are also substantially vertically aligned at hull speeds below liftoff.

4. **(Previously presented)** A hull according to claim 1, wherein the aspect ratio ( $S_2^2/A_2$ ) of the hull at lift-off speed is in the range of 1.5 to 2.5.

5. **(Previously presented)** A hull according to claim 1, wherein a leading edge of the wetted area of the hull at design speed is generally transverse to the direction of forward movement of the hull along at least a portion of its length, whereby a spray sheet which may be created by

the hull, in use thereof, is projected generally forward such that the craft rides over the spray sheet.

6. **(Previously presented)** A hull according to claim 5, wherein the leading edge of the wetted area of the hull at design speed is generally transverse to the direction of forward movement of the hull along at least a substantial portion of its length.

7. **(Previously presented)** A hull according to claim 1, wherein the hull is of generally delta-shape in plan view, comprising a central portion and two side wing portions.

8. **(Previously presented)** A hull according to claim 7, wherein each side wing portion extends laterally and rearwardly from the central portion so as to define an open area there between adjacent a transom of the central portion of the hull.

9. **(Previously presented)** A hull according to claim 8, wherein the hull additionally includes a cover portion for covering this open area.

10. **(Previously presented)** A hull according to claim 9, wherein the hull is provided with two propellers attached to the transom of the central portion of the hull.

11. **(Previously presented)** A hull according to claim 8, further including an abruptly downswept trailing edge portion.

12. **(Previously presented)** A hull according to claim 11, wherein said trailing edge portion is integrally formed in the hull.

13. **(Previously presented)** A hull according to claim 11, wherein said trailing edge portion is provided in the form of a rear flap

means affixed to a trailing end of the hull, the flap means projecting generally downwardly from the hull at an angle of greater than 45 degrees to the free water surface, at design conditions.

14. **(Previously presented)** A hull according to claim 13, wherein the flap means projects generally downwardly from the hull at an angle of substantially 90 degrees.

15. **(Previously presented)** A hull according to claim 14, wherein said flap means extends over the full width of the transom of the central portion of the hull and also extends across the full length of inner and trailing edges of each side wing portion defining the open area at the rear of the hull.

16. **(Previously presented)** A hull according to claim 13, wherein the chord of the flap means is variable.

17. **(Currently amended)** A hull according to claim ~~21~~ 13, wherein the chord of the flap means at the transom of the central portion of the hull is independently variable of the chord of the flap means at the inner and trailing edges of the wing portions.

18. **(Previously presented)** A hull according to claim 7, wherein the central portion of the hull includes a nose portion which comprises a forward surface extending rearwardly and downwardly from a nose of the hull towards a trailing end portion of the central portion of the hull, and lightly cambered in longitudinal section thereof such that the angle of said forward surface relative to the water surface in use of the hull, is

progressively reduced along the length of said nose portion towards said trailing end portion of the hull.

19. **(Previously presented)** A hull according to claim 7, wherein each side wing portion is lightly cambered in transverse cross-section thereof such that the angle of an underside of each side wing portion relative to the water surface is progressively reduced from a tip of the wing portion, along the transverse width of the wing portion, towards the central portion of the hull.

20. **(Previously presented)** A hull according to claim 19, wherein each side wing portion is also similarly lightly cambered in longitudinal section thereof.

21. **(Previously presented)** A hull according to claim 7, wherein each side wing portion has an underside portion which is inclined to an underside of the central portion of the hull at an angle  $\Delta$  which is in the range of 2 to 10 degrees.

22. **(Previously presented)** A hull according to claim 1, further including a keel extending downwardly from an underside of the hull and which is formed and arranged so that the center of lateral resistance of the keel is substantially vertically aligned with the center of gravity ( $C_g$ ) of the hull.

23. **(Previously presented)** A hull according to claim 22, wherein said keel is retractable.

24. **(Previously presented)** A water craft incorporating a hull according to claim 1.

25. **(Currently amended)** A water craft according to claim 24, wherein the hull is formed and arranged such that, if the craft pitches such that the bow of the craft raises, the hydrodynamic center of lift ( $C_p$ ) of ~~a~~the lifting surface of the hull moves sharply rearwards as the ~~stem~~stern of the craft becomes immersed.

26. **(Previously presented)** A water craft according to claim 25, wherein the hull is also formed and arranged such that if the craft pitches such that the bow of the craft lowers, the hydrodynamic center of lift ( $C_p$ ) of said lifting surface of the hull moves sharply forward.